



Houston-Galveston Area Council Active Transportation Handouts

September 16, 2022

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How to Access the Activity-Connectivity Explorer (ACE)?

- Visit the website using the link or QR code
<https://www.h-gac.com/interactive-web-applications>

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Activity Connectivity Explorer (ACE)

1. Click on "GIS, Imagery, Online Mapping Tools"

2. Click on "Interactive Web Applications"

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Activity Connectivity Explorer (ACE)

3. Scroll down the page until you see the circled icon.
4. Click on "ACE (Activity-Connectivity Explorer) - Advanced Viewer"

5. Click on "Launch Application"

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Activity Connectivity Explorer (ACE)

6. Read the disclaimer and click on "OK"

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Activity Connectivity Explorer (ACE)

7. Turn off the "ACE Layers" for right now to better see the map. Scroll down about halfway of the layer list and click on the check box to unmark.

8. Use the GIS buttons to change the base map to your preference (e.g. streets, topographic, satellite, etc.).

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Ped/Bike Commuter Analysis

9. Zoom in the map to the appropriate level for your project area.
10. Click on the green circle "Location Analysis."

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Ped/Bike Commuter Analysis

11. You can either drop a pin, draw a line, or draw a shape. Click on the appropriate button. This example is using the middle icon to draw a line.

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Ped/Bike Commuter Analysis

11. Choose your buffer distance by typing in the number of miles.

12. Use this button to scroll where the "Ped/Bike Commuter Analysis" is visible in the header.

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Ped/Bike Commuter Analysis

13. Click and hold to scroll to the end of the analysis options so the "Mode-Shift New Bicycling Trips," "Mode-Shift New Bicycling Trips," and "Total Daily VMT Reduction (mile)" are visible. The analysis also includes "New Bicycling Commuters with Mode-Shift" and "New Walking Commuters with Mode-Shift."

Mode-Shift New Bicycling Trips	Mode-Shift New Walking Trips	Mode-Shift New Bicycling Trips	Daily VMT Reduction by New Walking Commuters (mile)	Daily VMT Reduction by New Bicycling Commuters (mile)	Total Daily VMT Reduction (mile)	Sidewalk Density
64	6	128	7.4	304.4	311.8	

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Ped/Bike Commuter Analysis

14. Scroll back to the far left to download the data. Click on the cloud icon to begin the download.

Total Commuter (2019)	Total Auto Commuter (2019)	Total Bicycling Commuter (2019)	Total Walking Commuter (2019)	Total 0~0.5 mile Commuter	Total 0.5~1 mile Commuter	Total 1~2 mile Com
2,156	2,087	0	69	27	48	129

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Accessibility Score

16. Note: You can revise the buffer area at any time or choose an entirely new study area by clicking "start over."

15. Keeping your same project area, click on the "Accessibility Score" tab.

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Accessibility Score

17. The "Activity Index", "Connectivity Index", "Amenity Index" and overall "Accessibility Score" is depicted. To download the data, click on the cloud icon.

Activity Index (0-100): A	Connectivity Index (0-100): B	Amenity Index (0-100): C	Accessibility Score: A(40%) + B (20%) + C (40%)
31	68.1	36.5	40.6

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Sidewalk Density Index

18. Use to scroll until the "Sidewalk Density Index" is visible as a header.

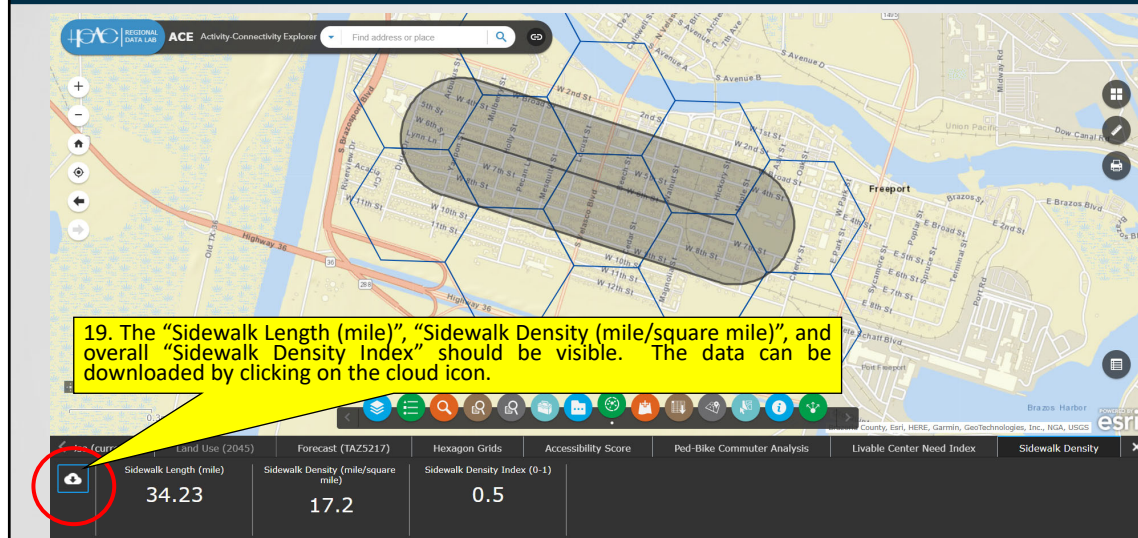
Location	Ped-Bike Destinations (9)	METRO Transit Facilities (0)	Land Use (current)	Land Use (2045)	Forecast (TAZ5217)	Hexagon Grids	Accessibility Score
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Sidewalk Density Index

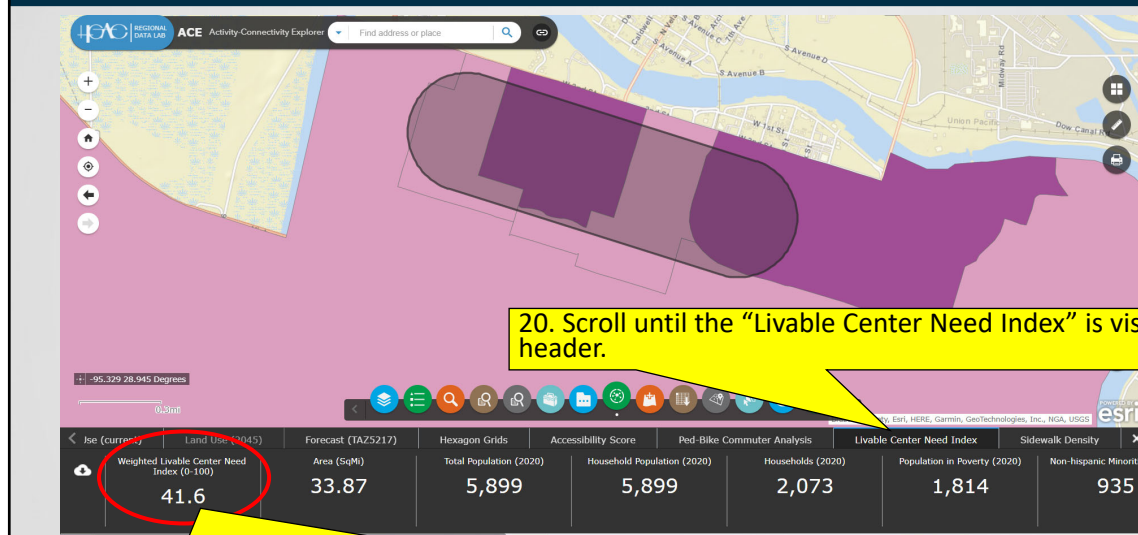


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Livable Centers Need Index (LCNI)



Note: This is what is commonly referred to as the LCNI.

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Livable Centers Need Index (LCNI)

21. Scroll to see the various demographic information.

Isr (current)	Forecast (TA25217)	Hexagon Grids	Accessibility Score	Ped-Bike Commuter Analysis	Livable Center Need Index	Sidewalk Density
Disabled (2020) 767	Elderly (2020) 104	Carless (2020) NaN	Single Female Householder with Children (2020) 302	Weighted Low & Moderate Income Persons (2015) 3,666	Weighted Total Income Persons (2015) 6,327	Weighted % of Low-Moderate Income (2015) 57.9

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Livable Centers Need Index (LCNI)

22. Scroll to see the various demographic information available.

Isr (current)	Land Use (2045)	Forecast (TA25217)	Hexagon Grids	Accessibility Score	Ped-Bike Commuter Analysis	Livable Center Need Index	Sidewalk Density
Hispanic Minorities (2020) 3,829	Limited English Proficiency (2020) 119	Disabled (2020) 767	Elderly (2020) 104	Carless (2020) NaN	Single Female Householder with Children (2020) 302	Weighted Low & Moderate Income Persons (2015) 3,666	

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Livable Centers Need Index (LCNI)

24. Download data by clicking on the cloud icon. Note: The "Weighted Livable Center Need Index" may not download and may need to be manually added to the spreadsheet.

Weighted Livable Center Need Index (0-100)	Area (SqM)	Total Population (2020)	Household Population (2020)	Households (2020)	Population in Poverty (2020)	Non-hispanic Minorities
41.6	33.87	5,899	5,899	2,073	1,814	935

23. Scroll back to the far-left side to download the data.

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Technical Data

Information regarding analysis details (such as formulas) can be downloaded from ACE.

Click on any of the documents to learn about that analysis details.

Click on the "i" icon to open the information/about dialog box.

Some of the technical documentation available:

- ACE Methodology
- ACE User Guide
- Ped-Bike Commuter Analysis Data
- Livable Centers Need Index

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